

Docket No.: END919980055US3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: G. J. Armezzani et al.

Group Art Unit:

: IBM Corporation

Examiner:

: Intellectual Property Law

Serial No.:

: Dept. N50, Bldg. 040-4

Filed: herewith

: 1701 North Street

Title: ELECTRONIC PACKAGE WITH  
STACKED CONNECTIONS AND  
METHOD FOR MAKING SAME

: Endicott, NY 13760

Assistant Commissioner For Patents  
Washington, D.C. 20231

~~I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner For Patents, Washington, D.C. 20231, on~~

~~(Date of Deposit)~~

~~Date~~

PRELIMINARY AMENDMENT

Dear Sir:

Please amend the above identified application as follows:

IN THE SPECIFICATION:

Page 1, line 8 - before "Background of the Invention", please add:

--Cross Reference to Copending Application

This application is a divisional application of S/N 09/282,842, filed 03/31/99.--

IN THE CLAIMS:

Please cancel all claims and add the following new claims:

- 1      --26.     An electronic package comprising:

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2           a first circuitized substrate having at least one conductive aperture therein having an  
3        external surface;

4           a second circuitized substrate having at least one conductive aperture therein having  
5        an external surface, said first and second circuitized substrates aligned such that said at least one  
6        conductive aperture of said first circuitized substrate is substantially aligned with said at least one  
7        conductive aperture of said second circuitized substrate, said at least one conductive aperture of  
8        said first circuitized substrate and said at least one conductive aperture of said second circuitized  
9        substrate including a conductive metallic layer thereon selected from the group consisting of  
10      copper, nickel, gold, chromium, solder and alloys thereof ; and

11           at least one solder member including a first contact portion extending from said  
12        external surface of said conductive aperture of said first circuitized substrate, said first contact  
13        portion including a cross-sectional configuration that is substantially oval or ellipsoidal, and a  
14        second contact portion extending substantially within both of said aligned conductive apertures  
15        of said first and second circuitized substrates to secure said circuitized substrates together, said  
16        metallic material of said at least one conductive aperture of said first circuitized substrate and  
17        said at least one conductive aperture of said second circuitized substrate including a protective  
18        layer thereon, said protective layer selected from the group consisting of benzatriazole, chlorite,  
19        and immersion tin.

1        27.       The electronic package of claim 26 wherein said first and said second circuitized  
2        substrates are comprised of a material selected from the group consisting of polyimide,  
3        polytetrafluoroethylene and epoxy glass cloth.

1        28.       The electronic package of claim 26 wherein said at least one conductive aperture of  
2        said first circuitized substrate and said at least one conductive aperture of said second circuitized  
3        substrate comprises a hole having a cylindrical shape.

1       29.       The electronic package of claim 26 where said solder member is comprised of a high  
2       melt solder alloy having a melting point temperature greater than about 183 degrees Celsius.

1       30.       The electronic package of claim 29 wherein said high melt solder alloy is comprised  
2       of metallic material, said metallic material is selected from the group consisting of tin, lead, gold,  
3       silver, antimony, and combinations thereof.

1       31.       The electronic package of claim 26 wherein said first contact portion of said solder  
2       member extending from said external surface of said conductive aperture of said first circuitized  
3       substrate forms a connection to a printed circuit board.--

REMARKS

The specification is amended to reference the parent application, SN 09/282,842.

Claims 1-25 are cancelled.

New independent claim 26 recites the subject matter of original independent structure claim 1, includes the limitations of original claims 5-8, and includes the patentably distinct limitations of claim 11, namely that the first contact portion of the solder member extending from the external surface of the conductive aperture of the first circuitized substrate includes a cross-sectional configuration that is substantially oval or ellipsoidal.

New dependent claims 27-31 recite the subject matter of original dependent claims 2, 4, 9, 10 and 12, respectively, and depend from new patentably distinct claim 26.

Support for new claims 26-31 is found in the parent application.

Support being fully provided for all the above amending, this amending does not constitute the addition of new matter and entry is urged.

Copies of the IDS and PTO-1449 form mailed on 3/31/99 in the parent application, S/N 09/282,842, are included herewith. Upon request, copies of these documents will be provided.

The Application is deemed in condition for allowance and such action on the part of the Examiner is respectfully requested. Should the Examiner believe, however, that minor differences remain which, if overcome, would result in allowance of the Application and that said differences can be openly discussed in a phone conversation, the Examiner is cordially requested to phone the undersigned, collect, at the number provided below, for the purpose of discussing these differences and hopefully obtaining allowance of the Application.

Dated: 15, 2001

Respectfully submitted,

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